## Milliman analysis: Rising interest rates in May drive \$95 billion improvement in corporate pension funded status



A significant sell-off in bonds drives interest rates higher and lowers pension liabilities by almost 6%; the resulting \$226 billion pension deficit for the Milliman 100 PFI is the lowest since July 2011

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The funded status of the 100 largest corporate defined benefit pension plans improved by \$95 billion during May as measured by the Milliman 100 Pension
Funding Index (PFI). The deficit dropped to \$226 billion from \$321 billion at the end of April, as a sell-off in bonds caused a rise in the benchmark corporate bond interest rates used to value pension liabilities. However, since the pension assets of these plans have transformed to a more risk-managed (and risk-adverse) investment management strategy, with a higher exposure to fixed income investments, there was a corresponding but not completely correlated reduction in plan assets during May.

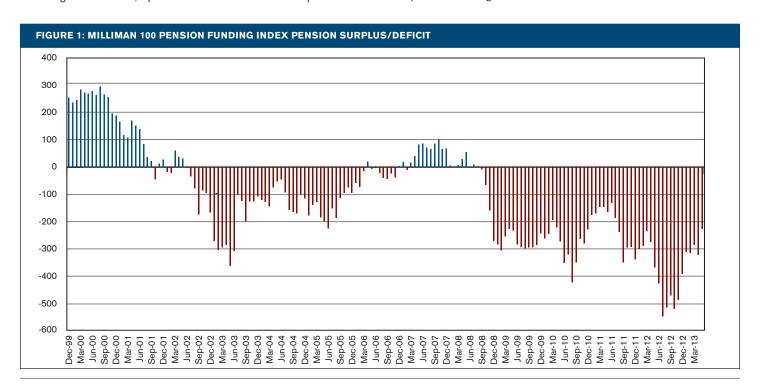
Plan sponsors are likely to welcome a PFI funded ratio that has surged to 86.0%, up from 81.2% at the end of April. This

HIGHLIGHTS				
		\$ BILLION		
	MV	РВО	FUNDED STATUS	FUNDED PERCENTAGE
APRIL 2013	1,389	1,711	(321)	81.2%
MAY 2013	1,384	1,610	(226)	86.0%
MONTHLY CHANGE	(5)	(101)	+95	+4.8%
YTD CHANGE	+62	(103)	+165	+8.8%

NOTE: NUMBERS MAY NOT ADD UP PRECISELY DUE TO ROUNDING

monthly improvement of 4.8% is the highest since the 4.9% improvement in October 2010.

The projected benefit obligation (PBO), or pension liabilities, decreased by \$101 billion during May, lowering the Milliman 100 PFI value to \$1.610 trillion from \$1.711 trillion at the end of April. The change resulted from an increase of 43 basis



points in the monthly discount rate to 4.41% for May, from 3.98% for April.

There was a modest market value decrease in May of \$5 billion. May's relatively flat investment return of -0.27% brings the Milliman 100 PFI asset value to \$1.384 trillion, down from \$1.389 trillion at the end of April. By comparison, the 2013 Milliman Pension Funding Study reported that the median expected investment return during 2012 was 0.60% (7.85% annualized). May's negative investment return was the first of its kind during 2013. Plan assets had earned above-expected returns for the first four months of the year. Despite May's poor investment performance, assets are still up for the year to date, boasting a 5.33% return thus far.

Over the last 12 months (June 2012 to May 2013), the cumulative asset return for these pensions has been 11.42% and the Milliman 100 PFI funded status deficit has improved by \$140 billion. The discount rate as of a year ago on May 31, 2012, was 4.56%. The funded ratio of the Milliman 100 companies has improved over the past 12 months to 86.0% from 77.6%.

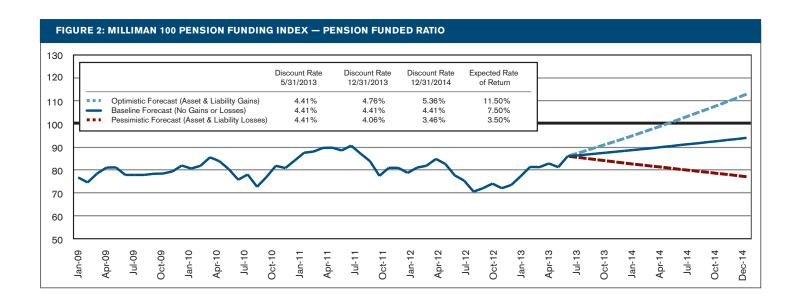
## **2013-2014 PROJECTIONS**

If the Milliman 100 PFI companies were to achieve the expected 7.5% (as per the 2013 pension funding study)

median asset return for their pension plan portfolios and the current discount rate of 4.41% was maintained during years 2013 and 2014, we forecast that the funded status of the surveyed plans would increase. This would result in a projected pension deficit of \$183 billion (funded ratio of 88.7%) by the end of 2013 and a projected pension deficit of \$98 billion (funded ratio of 94.0%) by the end of 2014. For purposes of this forecast, we have assumed 2013 aggregate contributions of \$74 billion and 2014 aggregate contributions of \$81 billion.

Under an optimistic forecast with rising interest rates (reaching 4.76% by the end of 2013 and 5.36% by the end of 2014) and asset gains (11.5% annual returns), the funded ratio would climb to 95% by the end of 2013 and 113% by the end of 2014. Under a pessimistic forecast with similar interest rate and asset movements (4.06% discount rate at the end of 2013 and 3.46% by the end of 2014 and 3.5% annual returns), the funded ratio would decline to 83% by the end of 2013 and 77% by the end of 2014.

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END OF MONTH	YEAR	MARKET VALUE OF ASSETS	PROJECTED BENEFIT OBLIGATION (PBO)	FUNDED STATUS	CHANGE IN FUNDED STATUS	FUNDED RATIO
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MAY	2012	1,269,002	1,634,658	(365,656)	N/A	77.6%
JUNE	2012	1,290,860	1,714,945	(424,085)	(58,429)	75.3%
JULY	2012	1,306,535	1,852,645	(546,110)	(122,025)	70.5%
AUGUST	2012	1,319,055	1,832,240	(513,186)	32,924	72.0%
SEPTEMBER	2012	1,335,728	1,804,898	(469,170)	44,016	74.0%
OCTOBER	2012	1,334,050	1,851,841	(517,791)	(48,621)	72.0%
NOVEMBER	2012	1,341,551	1,827,021	(485,470)	32,321	73.4%
DECEMBER	2012	1,322,002	1,712,697	(390,695)	94,775	77.2%
IANUARY	2013	1,342,030	1,651,004	(308,974)	81,721	81.3%
FEBRUARY	2013	1,351,607	1,665,403	(313,796)	(4,822)	81.2%
MARCH	2013	1,366,947	1,651,385	(284,438)	29,358	82.8%
APRIL	2013	1,389,351	1,710,739	(321,388)	(36,950)	81.2%
MAY	2013	1,383,901	1,609,793	(225,892)	95,496	86.0%

	ASSET RETURNS				LIABILITY RETURNS	
END OF MONTH	YEAR	MONTHLY	YEAR-TO-DATE	DISCOUNT RATE	MONTHLY	YEAR-TO-DATE
MAY	2012	-2.21%	2.15%	4.56%	4.14%	4.03%
JUNE	2012	1.79%	3.98%	4.32%	5.03%	9.26%
JULY	2012	1.28%	5.31%	3.92%	8.11%	18.12%
AUGUST	2012	1.02%	6.38%	3.99%	-1.01%	16.93%
SEPTEMBER	2012	1.32%	7.79%	4.08%	-1.39%	15.30%
OCTOBER	2012	-0.07%	7.72%	3.96%	2.69%	18.40%
NOVEMBER	2012	0.62%	8.39%	4.05%	-1.25%	16.92%
DECEMBER	2012	-0.30%	8.07%	3.96%	-4.20%	12.01%
JANUARY	2013	1.64%	1.64%	4.22%	-3.30%	-3.30%
FEBRUARY	2013	0.84%	2.49%	4.16%	1.18%	-2.15%
MARCH	2013	1.26%	3.78%	4.22%	-0.53%	-2.67%
APRIL	2013	1.76%	5.61%	3.98%	3.90%	1.12%
MAY	2013	-0.27%	5.33%	4.41%	-5.59%	-4.53%

## **ABOUT THE MILLIMAN 100 MONTHLY PENSION FUNDING INDEX**

For the past 13 years, Milliman has conducted an annual study of the 100 largest defined benefit pension plans sponsored by U.S. public companies. The Milliman 100 Pension Funding Index projects the funded status for pension plans included in our study, reflecting the impact of market returns and interest rate changes on pension funded status, utilizing the actual reported asset values, liabilities, and asset allocations of the companies' pension plans.

The results of the Milliman 100 Pension Funding Index were based on the actual pension plan accounting information disclosed in the footnotes to the companies' annual reports for

the 2012 fiscal year and for previous fiscal years. This pension plan accounting disclosure information was summarized as part of the Milliman 2013 Pension Funding Study, which was published on March 25, 2013. In addition to providing the financial information on the funded status of U.S. qualified pension plans, the footnotes may also include figures for the companies' nonqualified and foreign plans, both of which are often unfunded or subject to different funding standards than those for U.S. qualified pension plans. They do not represent the funded status of the companies' U.S. qualified pension plans under ERISA.

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